L 31426-66 EWP(j) RM

ACC NR: AP6023141 SOURCE CODE: PO/0046/66/011/001/0001/0005

AUTHOR: Wincel, Henryk--Vintsel', G.; Kecki, Zbigniew--Kentski, Z.

ORG: Department of Radiation Chemistry, Institute of Nuclear Research, Warsaw-Zeran

TITLE: Primary processes in radiation chemistry as studied by mass spectrometry. VI. Ion recombination in tetrahydronaphthalene radiolysis in the liquid phase

SOURCE: Nukleonika, v. 11, no. 1, 1966, 1-5

TOPIC TAGS: radiation chemistry, mass spectrometry, chemical decomposition, ion recombination, electron recombination

ABSTRACT: Thermalization of electrons knocked out from the molecules and ion-electron recombination in the tetrahydronaphthalene radiolysis process in the liquid phase are discussed. The $G(ion^+)$ value for the time scale 1.92×10^{-13} sec was evaluated to be 0.7. The authors thank Professor, Doctor S. Minc for his interest and help in this work. Orig. art. has: 1 figure and 9 formulas. [NA]

SUB CODE: 07 / SUBM DATE: 26Oct65 / ORIG REF: 004 / OTH REF: 009

Card 1/1 JT

0915 1351

L 09188-67 EWP(j) RM
ACC NR: AP7002749 SOURCE CODE: PO/0046/66/011/005/0307/0317

AUTHOR: Wincel, Henryk--Vintsel', G.; Kecki, Zbigniew--Kentskiy, Z.; Stachowicz, Waclaw--Stakhovich, V.; Mine, Stefan--Mints, S.

ORG: Department of Radiation Chemistry, Institute of Nuclear Research, Warsaw-Zeran

TITLE: Primary processes in radiation chemistry as studied by mass spectrometry. VII. Mechanism of tetrahydronaphthalene radiolysis in liquid phase 36

SOURCE: Nukleonika, v. 11, no. 5, 1966, 307-317

TOPIC TAGS: radiation chemistry, mass spectrometry

ABSTRACT: The mechanism of 1, 2, 3, 4-tetrahydronaphthalene radiolysis in the liquid phase developed on the basis of the recognized elementary radiation-chemical processes is discussed. The calculated yields of molecular products formed as a result of individual elementary processes and their total yields were tabulated. The calculated results were critically compared with experimental data considering the gamma radiolysis of tetrahydronaphthalene. The authors thank Professor, Doctor M. Magat and Doctor J. Durup from the Laboratory of Physical Chemistry, Faculty of Sciences, Orsay, France, for helpful discussions on elementary processes. The authors also thank Mrs. D. Korutkowska and Mr. J. Pachelski for technical assistance. Orig. art. has: 1 figure, 20 formulas and 3 tables. [Orig. art. in Eng.] [NA]

SUB CODE: 07 / SUBM DATE: 29Dec65 / ORIG REF: 009 / OTH REF: 014

Card 1/1 nst

0925 1623

KECKI, Zbigniew; WINCEL, Henryk

Primary processes of radiation chemistry as studied by mass spectrometry. Pt. 1. Nukleonika 8 no.2:117-127 '63.

1. Institute of Nuclear Research, Department of Radiation Chemistry, Warsaw 9.

L 15699-63 EWP(j)/EPF(c)/BDS AFFTC/ASD Pc-4/Pr-4 RM/WW

ACCESSION NR: AP3006247 P/0046/63/008/004/0215/0223 70

AUTHOR: Wincel, Henryk; Kecki, Zbigniev 67

19

TITLE: Primary processes in radiation chemistry as studied by mass spectrometry. II. The structure of $C_7H_7^+$ and $C_8H_8^+$ ions from tetrahydronaphthalene in the gas phase

SOURCE: Nukleonika, v. 8, no. 4, 1963, 215-223

TOPIC TAGS: tetrahydronaphthalene ion, tropylium ion, dissociated ion structure, undissociated ion structure

ABSTRACT: The potential at which the $C_7H_7^+$ and $C_8H_8^+$ ions are produced from tetrahydronaphthalene by electron collision has been measured, and their heat of formation has been estimated. The measurements show that $C_7H_7^+$ ions, whether at the threshold energy of formation or at higher energies, have a symmetric tropylium structure. The structure of $C_8H_8^+$ ions differs according to their energy state; they are styrene and/or o-quinodimethane ions at their lowest excited state and cyclooctatetraene ions at the highest excited state. Nothing about the quantitative ratio of these ions nor the rearrangement of styrene or

Card 1/2

L 15699-63
ACCESSION NR: AP3006247

o-quinodimethane ions to form cyclooctatetraene can be decided from the data. It can only be assumed that the rearrangement takes place far below the threshold energy of $C_8H_8^+$ decomposition. If a tetrahydronaphthalene molecule has an energy which considerably exceeds the threshold energy of $C_8H_8^+$ formation, it is possible that the rearrangement to an eight-membered ring takes place during the dissociation when an active complex is formed. "The authors express their thanks to Professor Dr. S. Minc for his guidance and encouragement and Professor Dr. W. Kolos for theoretical discussions." Orig. art. has: 1 figure, 3 formulas, and 3 tables.

ASSOCIATION: Department of Radiation Chemistry, Institute of Nuclear Research, Warsaw

SUBMITTED: 30Dec62 DATE ACQ: 23Sep63 ENCL: 00

SUB CODE: PH NO REF SOV: 000 OTHER: 026

Card 2/2

WOJTKIEWICZ, Wincenty; SZADOWSKI, Jerzy

Studies on the possibility of utilizing 2-Methylnaphthalene in the synthesis of dyes. Pt. 3. Chemia stosow A 8 no.3:295-303 '64.

1. Department of Dyes of the Lodz Technical University.

P/036/63/000/003/001/002
D403/D307

AUTHOR: Wincza, Michał (Gdańsk)

TITLE: Effect of the method of welding on the strength of joints of the AlMg5 alloy

PERIODICAL: Przegląd Spawalnictwa, 15 no. 3, 1963, 66-70

TEXT: The work was carried out on AlMg5 6 mm sheet, (produced as HY5 by Westfälische Leichmetallwerke, West Germany). The alloy contains (%): 4.44 Mg, 0.20 Mn, 0.20 Fe, 0.18 Si, 0.02 Cu, 0.04 Zn, Al - rest. The mechanical properties of the alloy are listed. The solder (AlMg5 wire) consisted of (%): 4.65 Mg, 0.22 Mn, 0.16 Fe, 0.18 Si, 0.02 Cu, traces of Cr and Ti, Al - rest. Three

out the weld root, on a support of refractory steel. (3) Acetylene welding (for comparative purposes). The best results were obtained with methods (1c) and (1d), while (1a) was least successful. Methods (2) and (3) are less predictable; (2) leads to microporosity of the weld, and (3) to deformation and corrosion of the Al alloys by the solder. There are 6 figures and 10 tables.

BUJNIEWICZ, Zbigniew, mgr inz.; WINCZA, Michal, mgr inz. (Gdansk)

Use of light alloys in shipbuilding. Bud okretowe Warszawa 9 no.6:202-205 Je '64.

WINCZA, Michal, mgr inz. (Gdansk)

Influence of shifting the edges of AlMg5 alloy steel sheets on the strength of welded joints. Przegl spaw 16 no.6:151-152 Je '64.

BUJNIEWICZ, Zbigniew, mgr inz.; WINCZA, Michal, mgr inz. (Gdansk)

Production of welded ship structures of light alloys. Bud okretowe Warszawa 10 no.1 15-18 Ja '65.

WINCZA, Michal, mgr inz.; BUJNIEWICZ, Zbigniew, mgr inz.

Automation of welding light alloy structures. Przegl spaw 17 no.4:98-102 Ap '65.

WINCZAKIEWICA, A.; PIELA, W.; PODGLODEK, T.

A contribution on the determination of B- and Y-cellulose in rayon-cellulose pulps. p. 693.

CHEMIA ANALITYCZNA. (Komisja Analitczna Polskiej Akademii Nauk i Naczelna Organizacja Techniczna) Warszawa, Poland, Vol. 3, no. 3/4 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 7, July 1959.

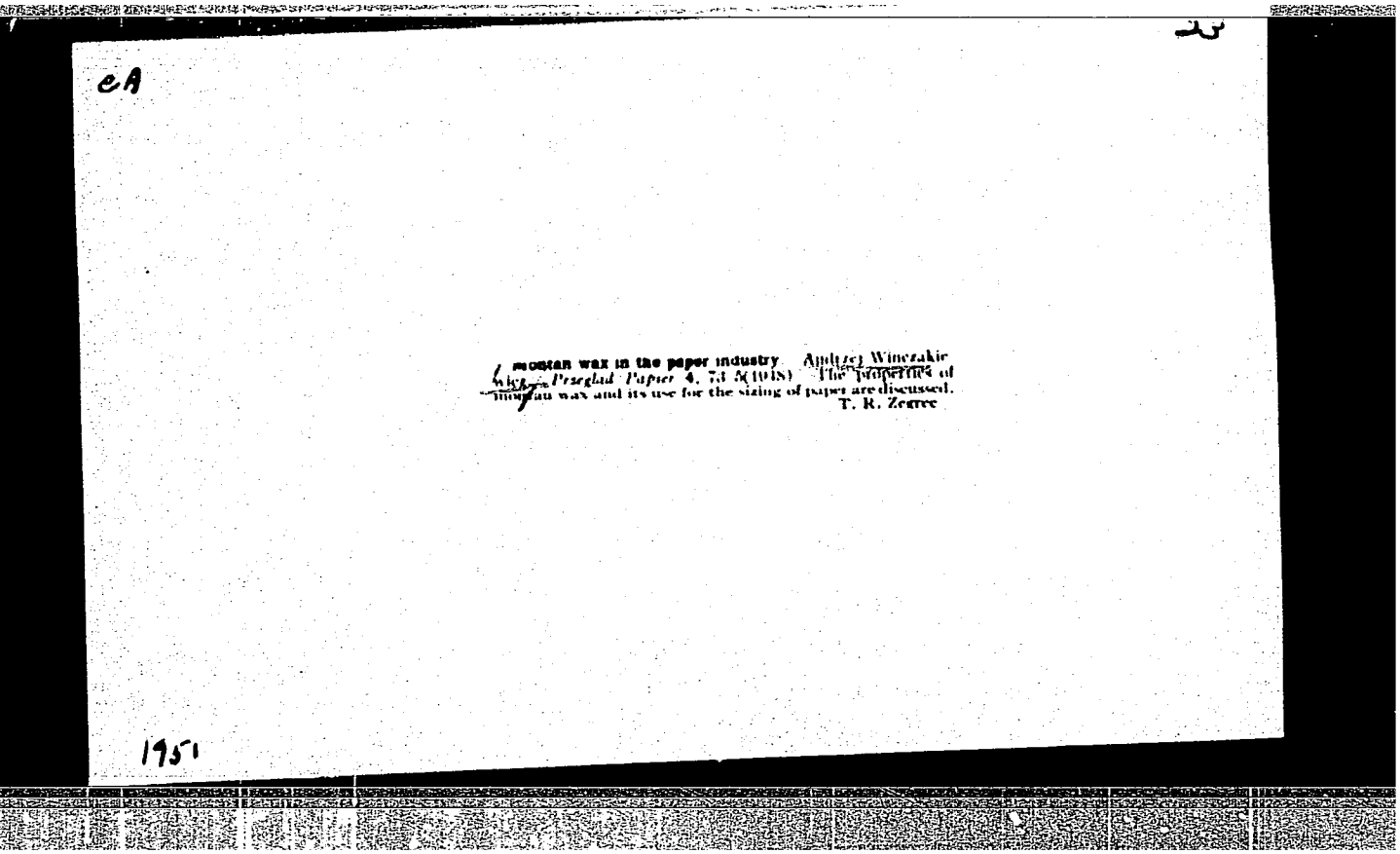
Uncl.

WINCZA, Michal, mgr inz.; BUJNIEWICZ, Zbigniew, mgr inz. (Gdansk)

Weldable aluminum alloys in shipbuilding. Przegl spaw 16 no. 1: 24-26 Ja '64.

BUJNIEWICZ, Zbigniew, mgr inz.; WINOZA, Michal, mgr inz. (Gdansk)

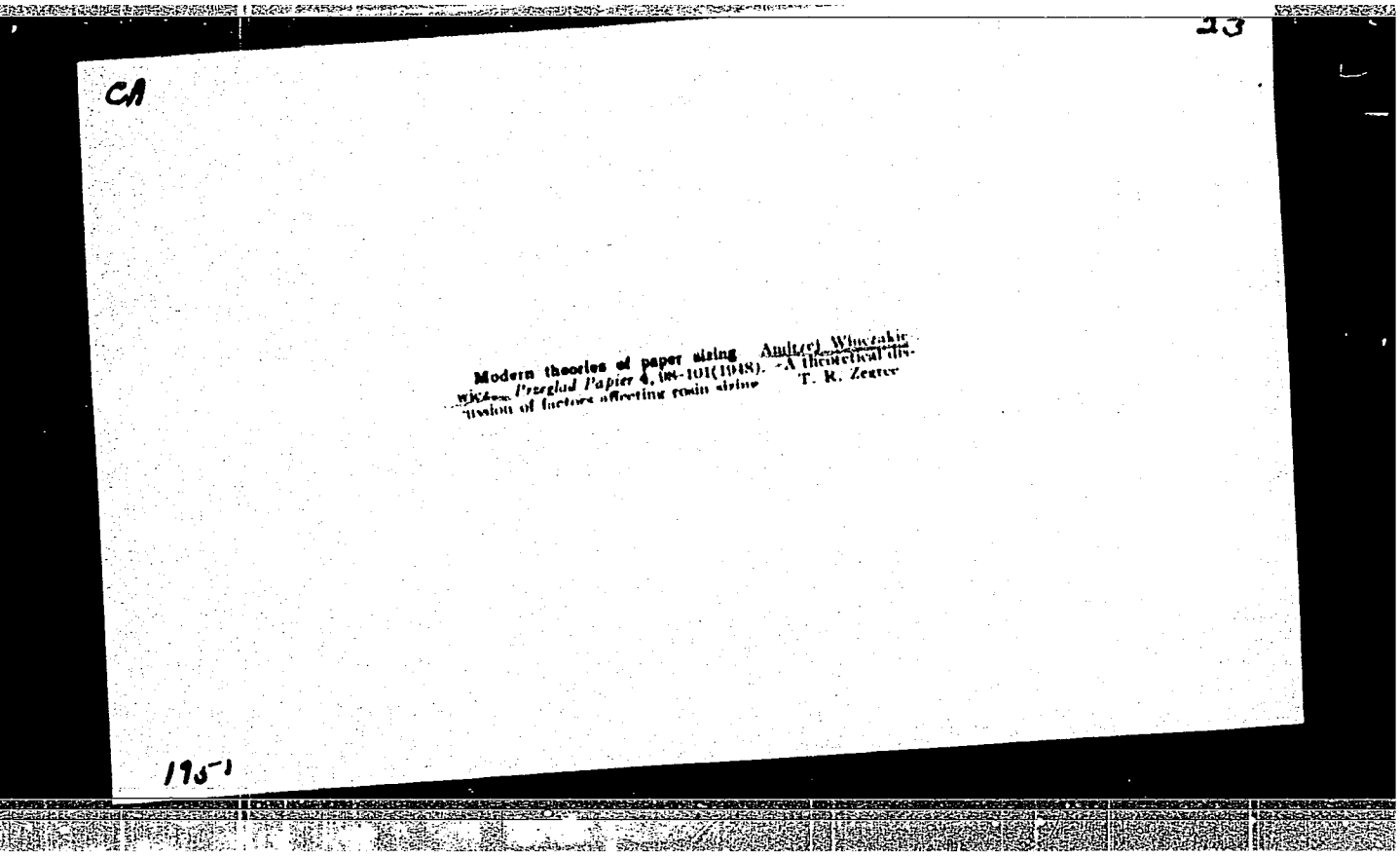
Characteristics of aluminum magnesium alloys used in ship construction. Mud okretowe Warszawa 9 no.5:176-179 My '64



cA

Montan wax in the paper industry. Andrzej Winczakie
Przeglad Papier. 4, 73-5(1948). The properties of
montan wax and its use for the sizing of paper are discussed.
T. R. Zegree

1951

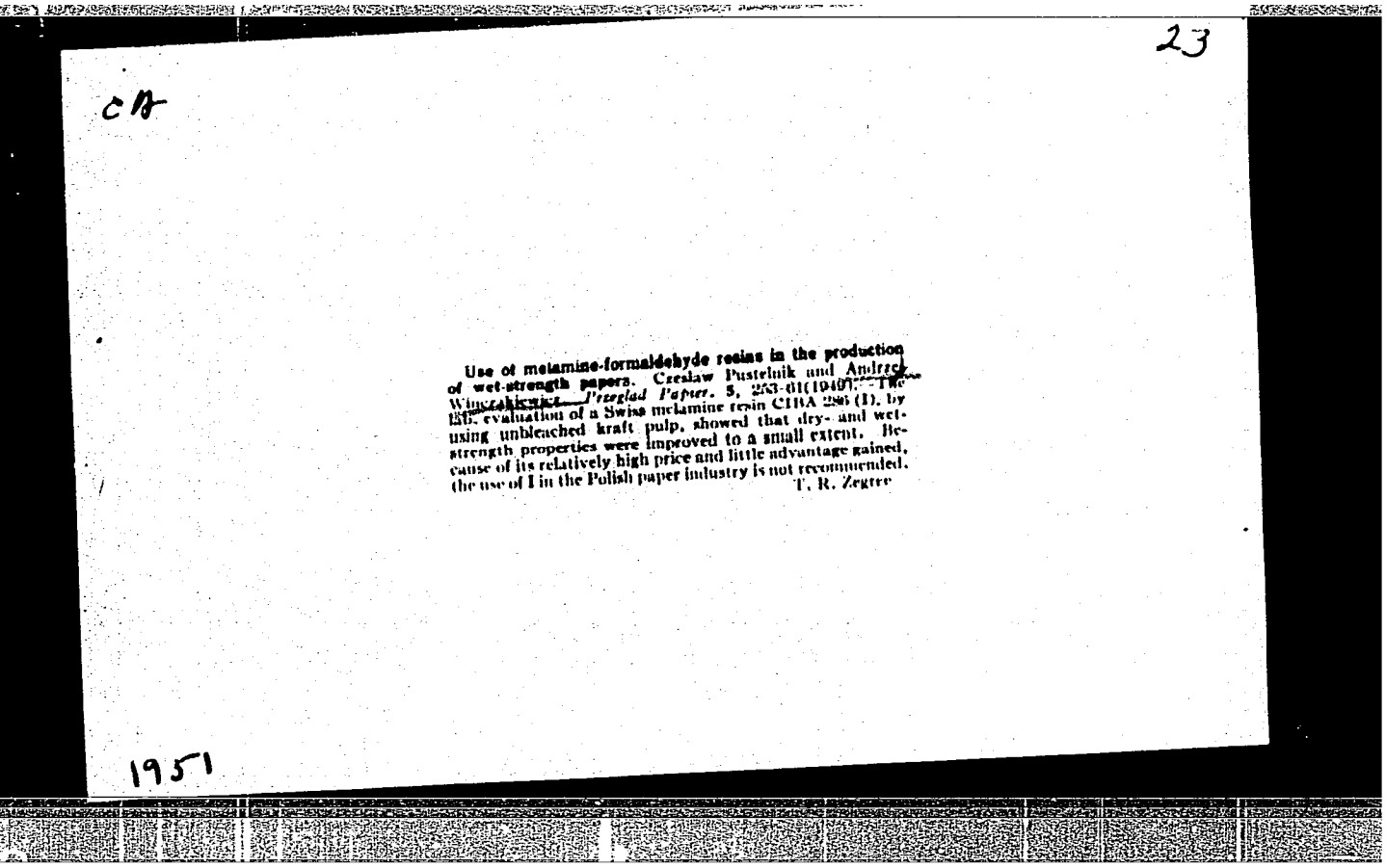


CA

23

Modern theories of paper sizing. Andrzej Wiszniewski. Przegląd Papier. 4, 98-101(1948). —A theoretical division of factors affecting rosin sizing. T. K. Zeuter

195-1



23

CB

Use of melamine-formaldehyde resins in the production of wet-strength papers. Czeslaw Pustelnik and Andrzej Wiszniewski. *Przeglad Papier.* 5, 253-61(1949). The lab. evaluation of a Swiss melamine resin CIBA 286 (I), by using unbleached kraft pulp, showed that dry- and wet-strength properties were improved to a small extent. Because of its relatively high price and little advantage gained, the use of I in the Polish paper industry is not recommended.
T. R. Zegrze

1951

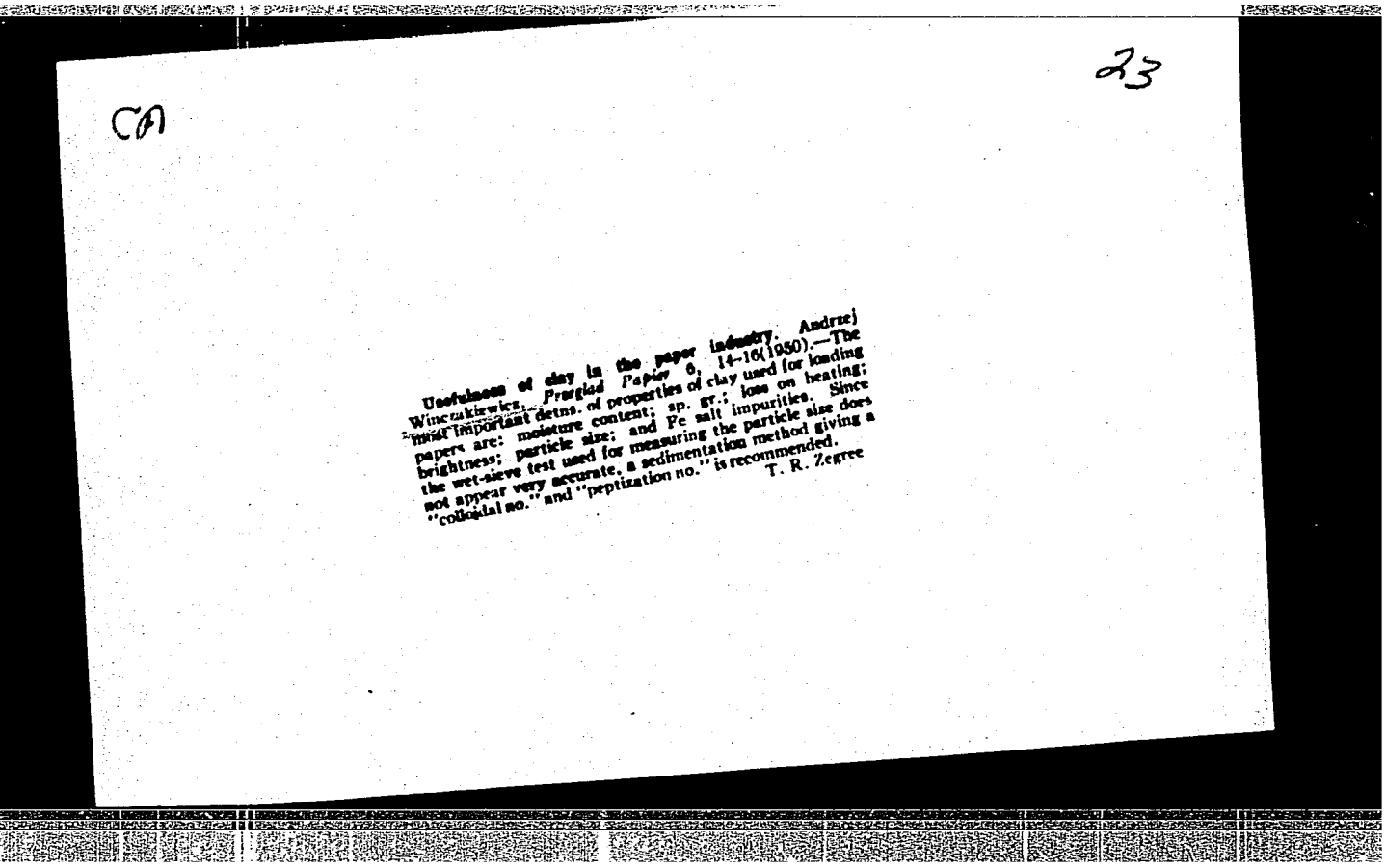
WINCZAKIEWICZ, A.

Winczakiewicz A.

Winczakiewicz A., Eng. "Paper Dyeing." (Barwienie papieru.) Przeglad Papierniczy, No. 3, 1950, pp. 79-84, 2 figs., 1 tab.

Classification of dyes used in paper manufacture. The theory of dyeing. Methods of dyeing: a) in the pulp, b) by immersion, c) by printing or coating. Factors influencing the process of dyeing: 1) fillers, 2) the pH-value of paper pulp, 3) the chemical nature of paper pulp, 4) temperature, 5) water, 6) adhesive, 7) rate of glutination, 8) calendering. Equipment of the dye shop. Impediments in dyeing. Laboratory testing of dyes.

SO: Polish Technical Abstracts - No. 2, 1951

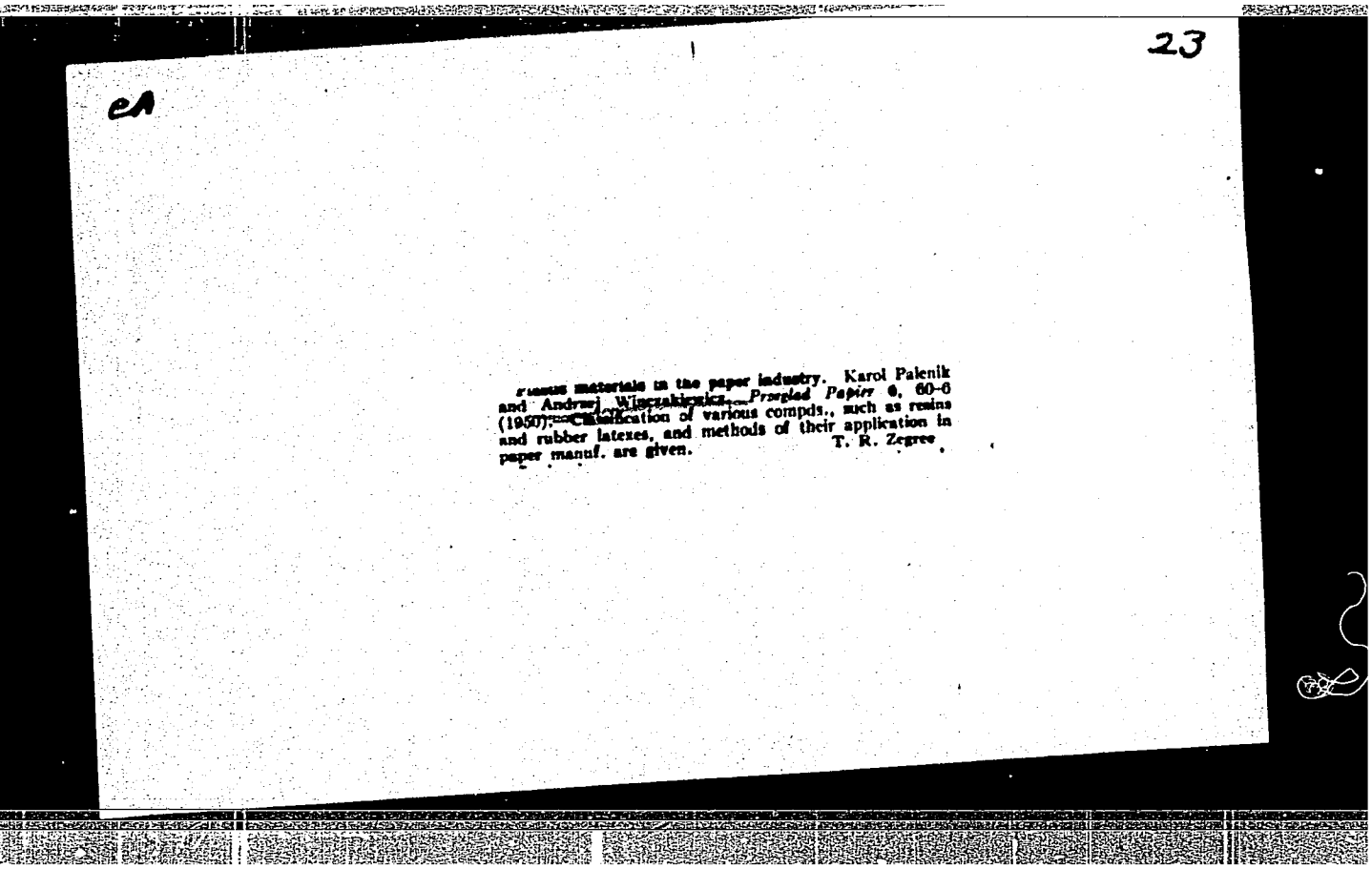


CA

23

Usefulness of clay in the paper industry. Andrzej Wieczakiewicz. *Przegląd Papier.* 6, 14–16(1950).—The most important detns. of properties of clay used for loading papers are: moisture content; sp. gr.; loss on heating; brightness; particle size; and Fe salt impurities. Since the wet-sieve test used for measuring the particle size does not appear very accurate, a sedimentation method giving a "colloidal no." and "peptization no." is recommended.

T. R. Zegree



23

eA

...ous materials in the paper industry. Karol Palenik and Andrzej Wieczakiewicz. *Przegląd Papier* 6, 60-6 (1950). Classification of various compds., such as resins and rubber latexes, and methods of their application in paper manuf. are given. T. R. Zegree

Laboratory tests on use of waste paper in newsprint manufacture. Andrzej Wieczakiewicz. *Przegląd Papier* 6, 132–4(1960).—Substitution of 10 to 20% of groundwood by waste paper (I) in the 80/20 groundwood/sulfite furnish gave a newsprint sheet of good strength and printing properties, but having a gray shade, which was not considered objectionable. I can be disintegrated in kollergangs, hydrapulpers, or beaters with raised roll. Deinking of I was judged too expensive and detrimental to the strength of groundwood fibers. T. R. Zegree

PTA

10

1360

Palenik K., Winczaklewicz A. Surface Sizing of Paper. 676.1.02.37
„Zaklejanie powierzchniowe papieru". Przeglad Papierniczy. No. 1, 1951, pp. 17—21, 3 figs.

The article deals with the problem of surface sizing of paper. The following matters are discussed: physical fundamentals of paper sizing, the advantages of surface sizing, raw materials used in surface sizing and necessary properties of such materials. The article next deals with the installation for surface sizing and with the methods of paper drying. In conclusion, numerical data is provided to indicate the changes in the physical properties of paper under the influence of surface sizing.

P1A

10

676.1.033.7 : 531.752

1302

Wieczakiewicz A. **Laboratory Research on Determining the Relation between Weight and Sizing of Paper.**

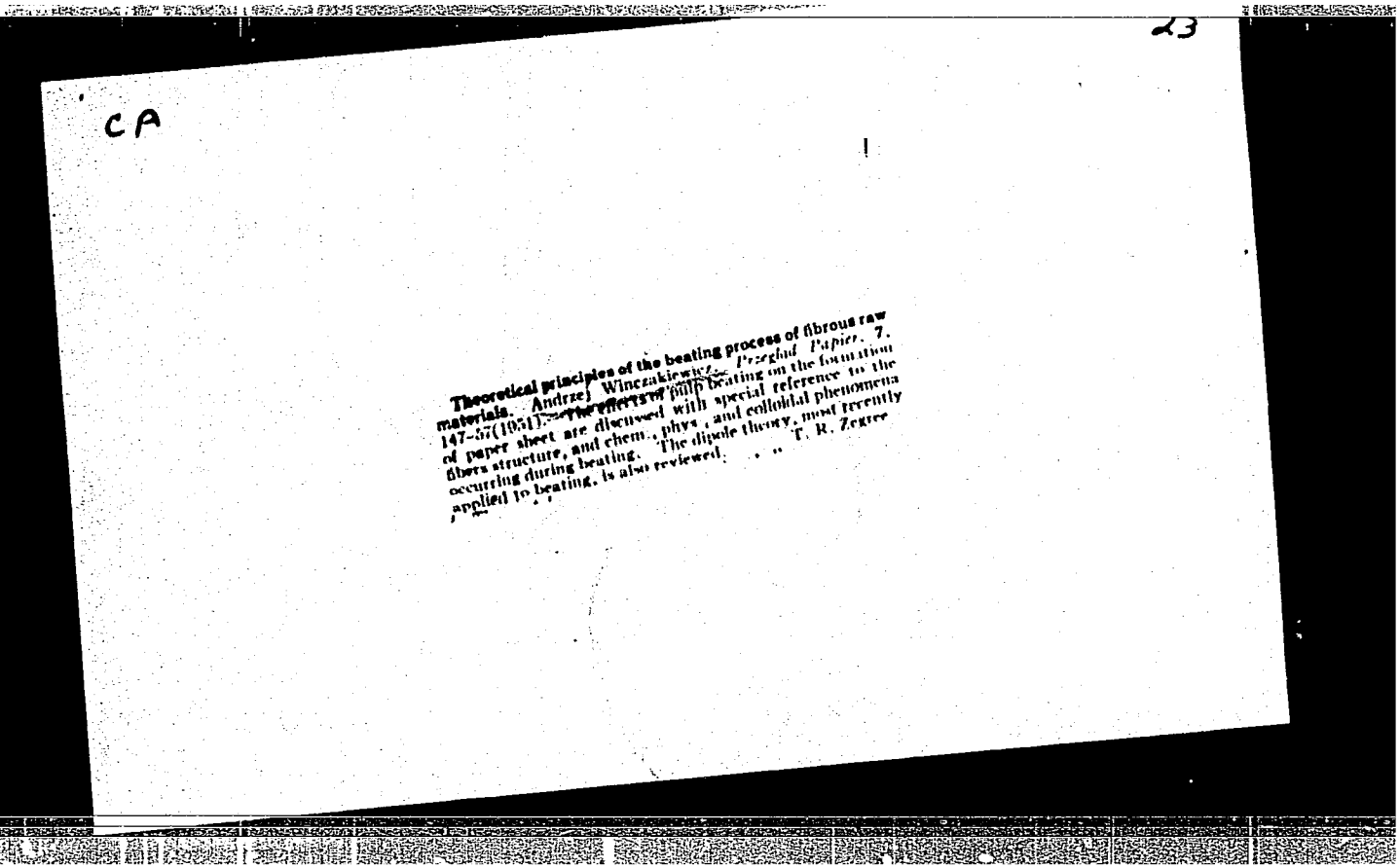
„Badania laboratoryjne nad ustaleniem zależności między gramaturą a zaklejeniem papierów". Przegląd Papierniczy. No 4, 1951, pp 89–92, 9 figs., 15 tabs.

At the Central Pulp and Paper Laboratory in Łódź the relation was determined between sizing of papers and basic weight. It was proved that in order to maintain an equivalent degree of sizing in three sorts of paper (C, D and E), it is necessary to add more resin size in relation to diminished basic weight. The degree of sizing is determined by the coefficient of absorptiveness f=10 — very good sizing, or f = 20 — satisfactory sizing. On the basis of approximate prices, a calculation of the possible drop in the weight of paper was made. It was proved that the diminution in weight is only justified when the cost of resin size and aluminium sulphate does not greatly exceed that of fibrous raw materials, and when the efficiency of the papermaking machine is not lowered by the making of thinner paper. Laboratory results are confirmed by factory experience.

CA

23

Laboratory experiments on sizing paper with sodium silicate. Andrzej Wieczakiewicz. *Przegląd Papier* 7, 45–8 (1951).—Sizing obtained on printing-type paper with a mixt. of resin size 2 and $Na_2O.3SiO_2$ 1 based on dry pulp 100 parts was better than using 3 parts of either of the two agents. Poor sizing was produced on a writing paper not contg. groundwood. T. R. Zegree



CA

23

Theoretical principles of the beating process of fibrous raw materials. Andrzej Winczakiewicz. *Przegląd Papier.* 7, 147–57(1951).—The effects of pulp beating on the formation of paper sheet are discussed with special reference to the fibers structure, and chem., phys., and colloidal phenomena occurring during beating. The dipole theory, most recently applied to beating, is also reviewed. T. R. Zegree

WINCZAKIEWICZ, A.

Polish Technical Abst.
No. 4, 1953
Chemistry and Chemical
Technology

676 1.01

2163
Palenik K., Winczakiewicz A. New Chemical Auxiliary Products in the Paper Industry.

„Nowe chemiczne środki pomocnicze w przemyśle papierniczym".
Przegląd Papierniczy. No. 1, 1953, pp 12—18.

This article deals with auxiliary chemical media used in paper manufacture (anti-froth and dispersing media); media for imparting special properties to the paper produced (beeswax emulsions, insecticides, water - proofing, water - tightening, fire-proofing, anti-corrosion media etc); media for improving the whiteness of the paper (leucophors — blancophors); media for fixing acids, basic and direct dyes; and media for obtaining uniformity of colouring. Methods of adding such media to the paper substance.

1

Winczakiewicz, A.

3072 661.728.3 : 676.140 : 633.521

Pusteinik C., Winczakiewicz A. Investigations Concerning the Suitability of Oil Flax Straw as Papermaking Raw Material. MT

„Badania nad przydatnością słomy lnu oleistego jako surowca papierniczego". (Prace Inst. Celuloz.-Papiern. No. 1), Warszawa, 1954, WPLIS, 14 pp., 7 figs., 1 tabs.

In order to find fibrous raw materials in substitution for linen rags used in high grade papers and tissue papers, detailed investigations were made over the papermaking possibilities of the seed flax straw. As starting material in the investigations, there were used successively: 1) puro bast fibres from oil flax straw; 2) bast fibres containing about 34% shives, 3) the entire oil flax straw, 4) shives. As a result of laboratory scale experiments, including obtaining cellulose paper-making half stuff and cellulose pulps from bast fibres, shives and the entire straw, the following conclusions were reached: 1) pure bast fibres and bast fibres containing shives are a suitable raw material for paper-making half stuff; the half stuff obtained from such raw materials has greater strength properties than the half stuff from linen rags; 2) sulphate pulp obtained from bast fibres containing shives can be used as a substitute for papermaking half stuff; this sulphate pulp has greater strength properties than the half stuff from linen rags, a high alpha-

(OVER)

1

PUSTELNIK, C.

-cellulose content and a low alcohol-benzene extraction; 3) pulp obtained from the entire straw constitutes a poor papermaking raw material — by comparison with rye straw, for instance, oil flax straw requires a great quantity of alkalies in cooking, and gives products with poor strength properties; 4) pulp obtained from shives also gives a poor papermaking material; low strength properties and short fibres in such pulps indicate, that the best use for this material is as filler for lower grades of paper-boards.

Winczakiewicz, A.

3877

Maciejko M., Winczakiewicz A. Determination of Water Permeability in Paper. 676.017 : 539.217.3(083.93)

MT.

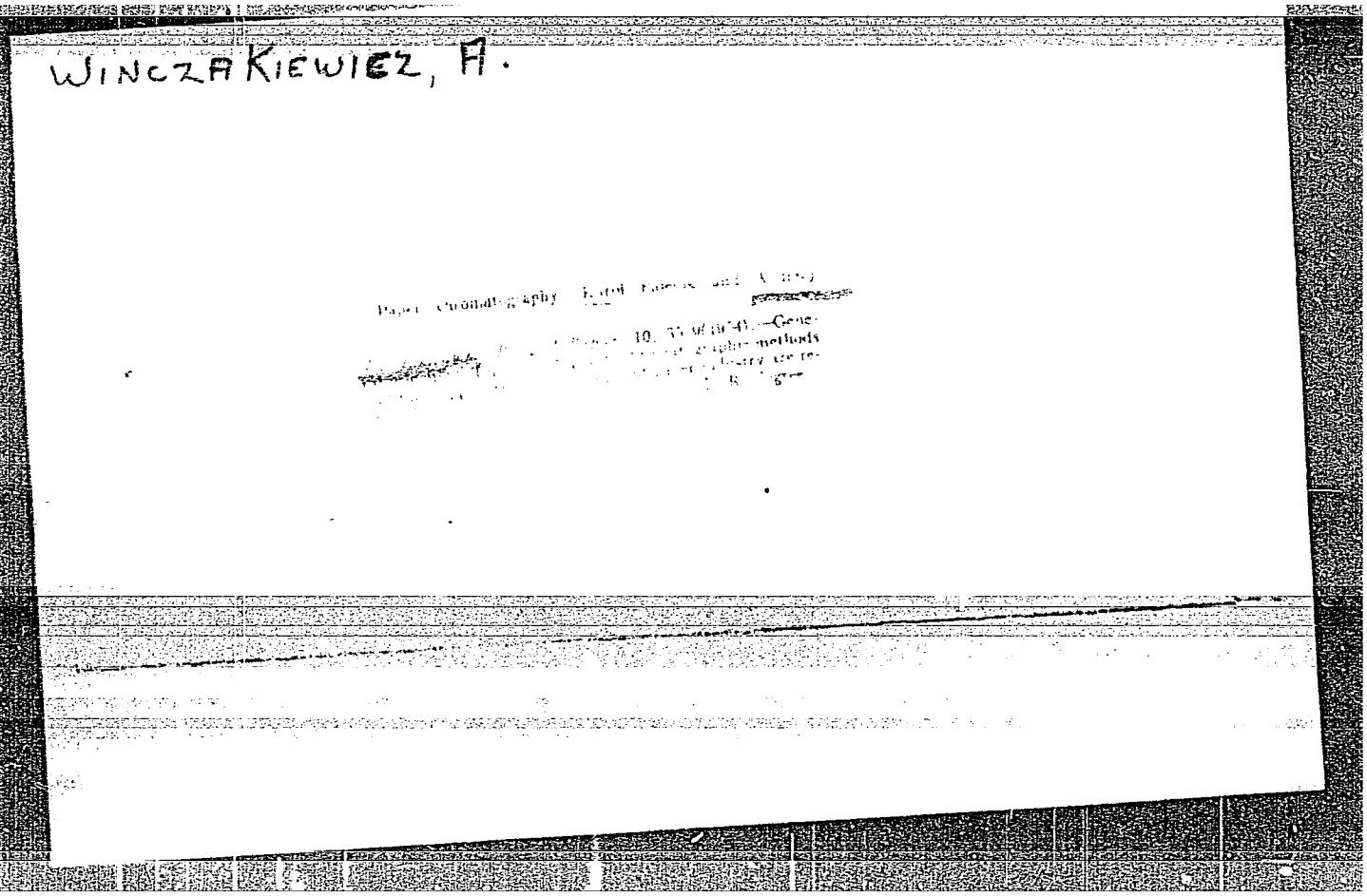
„Oznaczanie przepuszczalności wody przez papier". (Prace Inst. Celuloz.-Papiern. No. 1), Warszawa, 1954, WPLiS, 3 pp., 2 figs., 2 tabs.

A description is given of an analytical method for determination of water permeability in paper by means of a Schopper apparatus. The method consists in measuring the amount of water passing through 100 cm² of the paper tested in normalized conditions. To the instruction for performing the analysis are added the results of water permeability tests made in respect of a certain number of papers, cardboards and blotting papers. The authors found a close inter-relationship between water permeability and bulk density, between sizing degree and basis weight. The method described is better suited to testing papers of high water permeability (filtration papers for instance) than papers of low water permeability. A scheme is proposed for classification of papers and cardboards by reference to their water permeability.

(1)

Seed flax straw as a papermaking raw material [illegible] Winczakiewicz [illegible] Prace [illegible] [illegible] pulping expts. were [illegible] [illegible] seed flax straw as a substitute for linen [illegible] rags in the manuf. of high grade papers. Bast fibers shives-free (I), bast fibers contg. about 34% shives (II), whole seed flax straw (III), and shives alone (IV) were cooked [illegible] kraft liquor. Unbleached pulps [illegible] had higher strength [illegible] kraft pulps from II and [illegible] cellulose content and low [illegible] were found suitable [illegible] as a substitute for linen rag pulps. III gave unsatisfactory pulps; it required a relatively high amt. of alkali and yielded pulps of low strength. Pulp obtained from IV was also of inferior quality and low strength; however, such pulp could be used as a filler for coarse paper or board because IV are of short fiber length. The utilization of I and II in the manuf. of pulp and paper in Poland is discussed.

T. R. Zegier



WINCZAKIEWICZ-A.

676.017.0

Maciejko M., Winczakiewicz A. A Comparative Estimation of Three Methods Used for the Determination of Degree of Paper Sizing: the Carson Method, the Modified Brecht Method and the Ink Tests.

„Porównanie trzech metod oznaczania stopnia zaklejenia papieru: metody Carsona, zmodyfikowanej metody Brechta i metody kreskowej". (Prace Inst. Celuloz.-Papiern. No. 2), Warszawa, 1954, WPLIS, 3 pp., 2 figs., 1 tab.

A detailed description is given of the Carson method for determining the degree of paper sizing; it was stated that when using this method, the paper samples for testing should be so cut as to ensure that the curving of the paper occurs transversely: this facilitates observations and makes it possible to obtain results more objective and reproducible. The Carson method was found suitable for examination of papers with a low degree of sizing, e.g. printing papers. A comparison of the Carson method with the modified Brecht method and the ink test was made by determination of the degree of sizing of several grades of writing, printing and bag paper. The results obtained with the Carson and the modified Brecht method proved to be comparable, that is, they gave similar estimations of papers. The most subjective is the ink test; it gives an insignificant differentiation of results as between papers sized in a different manner. The ink test should be considered only as supplementary to be used for orientation purposes. The results obtained with it are not always comparable with results obtained with the other two methods discussed.

WINCZAKIEWICZ

POL.

Starch and its use in the paper industry. Andrzej Winczakiewicz. Przegl. Papier. 10, 323-[illegible]. [illegible] properties of starches, various methods of their conversion by treatment with acids, enzymes, oxidation, heating esterification, and etherification, and their uses in the paper manuf. as additives to pulp or as coating materials, are reviewed. T. R. Zegree.

WINCZAKIEWICZ, A.

Poland/Chemical Technology. Chemical Products and Their Application -- Wood chemistry products. Cellulose and its manufacture. Paper, I-23

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6290

Author: Winczakiewicz, Andrzej

Institution: None

Title: Combined Milling

Original Publication: Przegl. papiern., 1954, 10, No 11, 335-337

Abstract: Description of laboratory experiments on milling of pulp for the production of paper of the required quality by combining two batches of pulp of different degree of milling. Blotting paper (100 g/m^2) was made, from sulfite spruce cellulose, the absorption capacity of which exceeds 60 mm/10 m, and the breaking length is of 1,200 m. The best composition is a mixture of 15% pulp milled to 80° ShR with 85% of unmilled pulp.

Card 1/1

WINCZAKIEWICZ, ANDRZEJ

Poland/Chemical Technology - Chemical Products and Their Application. Wood Chemistry Products. Cellulose and Its Manufacture. Paper, I-23

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 63374

Author: Winczakiewicz, Andrzej

Institution: None

Title: Fiber Structure in the Light of Recent Investigations

Original Periodical: Budowa wlokna w swietle nowych badan, Przegl. papiern, 1955, 11, No 6, 161-165; Polish; Russian and English resumes

Abstract: None

Card 1/1

NIERYCHLEWSKI, Tadeusz, mgr inz.; WINCZAKIEWICZ, Andrzej, doc.

Determination of the influence of the composition of raw materials and the way of producing the corrugating medium on the strength properties of corrugated board. Przegl papier 21 no.2:33-40 F '65.

1. Pulp and Paper Institute, Lodz.

WINCZAKIEWICZ

K-5

POLAND/Chemical Technology - Chemical Products and Their Applications. Cellulose and Cellulose Products. Paper.

Abs Jour : Ref Zhur - Khimiya, No 2, 1958, 6625

Author : Makowska, Winczakiewicz

Inst : -

Title : Laboratory Investigations on the Use of Zinc White as Paper Fillers.

Orig Pub : Prace Inst. celul.-papiern., 1956, 5, No 1, 31-37

Abstract : On laboratory equipment, a number of test sheets of paper No 1, 2, and 3 weighing 30 gm/m^2 filled with zinc (2 types) and titanium whites in such amounts that the ash content of the finished product be 15% were prepared. When the paper was sized with 2% of resin with 1% starch added, the filler being added first, then the resin sizing, the starch, and the aluminum sulfate solution, the filler

Card 1/2

POLAND/Chemical Technology - Chemical Products and Their Applications. Cellulose and Cellulose Products. Paper.

K-5

Abs Jour : Ref Zhur - Khimiya, No 2, 1958, 6625

retention was 39.8%. The mechanical properties of paper No 3 (filler content 15%, weight 30 gm/m^2 thickness 26 μ, Ostwald whiteness 85.6%) were satisfactory.

Card 2/2

WINCZAKIEWICZ, A.

WINCZAKIEWICZ, A. Cellulose and Paper Institute in Peking. p. 260

Vol. 12, no. 9, Sept 1956
PRZEGLAD PAPIERNICZY
TECHNOLOGY
Lodz, Poland

So: East European Accession Vol. 6, no. 2, 1957

WINCZAKIEWICZ, A.

Tsai-Lun, the inventor of paper.

P. 124. (PRZEGLAD PAPIERNICZY) (Lodz, Poland) Vol. 13, no. 4, Apr. 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

POLAND/Chemical Technology. Chemical Products and Their Uses. Part IV. Cellulose and Its Derivatives. Paper. H

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 52353

Author : Winczakiewicz, Andrzej
Inst : -
Title : Production of Paper Used for the Preparation of Micanite Cambric and Micanite Paper (for Electrical Insulants).

Orig Pub : Przegl. papiern., 1957, 13, No 4, 127-128

Abstract : A description of laboratory and factory experiments dealing with electrical insulating paper, and consisting of the paper's pulverization and starch glue treatment. The paper's properties depend on the processing

Card : 1/2

POLAND/Chemical Technology. Chemical Products and Their Uses. Part IV. Cellulose and Its Derivatives. Paper. H

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 52353

conditions. Physical and chemical properties of the paper were listed. -- Ya. Shteynberg

Card : 2/2

WINCZAKIEWICZ,A

The Isogrand method.

P. 129 (PRZEGLAD PAPIERNICZY) (Lodz, Poland) Vol. 13, no 5, May 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5. 1958

POLAND/Chemical Technology. Chemical Products and Their Uses. Part IV. Cellulose and Its Derivatives. Paper. H

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 52351

Author : Winczakiewicz, Andrzej
Inst : -
Title : Chinese Tissue.

Orig Pub : Przegl. papiern., 1957, 13, No 6, 165-169

Abstract : Production data for a Chinese paper plant in Hangchow were presented. This type of paper is called Japanese tissue in Poland. Reference to it as Chinese tissue in the future is proposed. -- From the author's resume.

Card : 1/1

H

Country : POLAND
Category :

Abs. Jour : 44406

Author : Winczakiewicz, A.
Institut. :
Title : The Problem of Determining Solubility of Cellulose in Alkalies

Orig Pub. : Przegl. papiern., 1958, 14, No 2, 38-41

Abstract : Results of studies conducted in accordance with a plan of the International Committee on Cellulose Analysis (ICCA), on verification and comparison of three methods for determining solubility of cellulose (C) in NaOH: Swedish CCA: 8-55, German IV/39B/55, and Canadian C-21-56. Testing was conducted on 8 samples of C of differing characteristics. Solubility was determined in 10, 18, and 21.5% NaOH solutions (I). Mercerization time of 30 and 60 minutes. In the same samples

Card: 1/1

WINCZAKIEWICZ, A.

COUNTRY : Poland H-33
CATEGORY :

ABS. JOUR. : RZKhim., No. 20 1959, No. 73457

AUTHOR : Piela, W.; Podglodek, T.; Winczakiewicz, A.
INST. :
TITLE : Determination of Beta- and Gamma-Cellulose in Cellulose Intended for Synthetic Fiber

ORIG. PUB. : Chem. analit., 1958, 3, No 3-4, 693-697

ABSTRACT : A comparison is made of four methods of determination of beta- and gamma-cellulose: the classical method of Cross-Bevan, Swedish Standard CCA-10-1941, the Czech Standard CSN-50-0261-1955, and the Swedish modified method. Advantages and disadvantages of these methods are noted. The Swedish method, which has its advantages, is recommended for quality control of cellulose intended for synthetic fiber. The experiments were conducted with three different specimens of cellulose having different analytic characteristics.

CARD: 1/1

COUNTRY : POLAND
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Cellulose and Its Derivatives. Paper
ABS. JOUR. : RZhKhim., No 17, 1959, No. 63076

AUTHOR : Gzylewski, J.; Minczakiewicz, A.
INSTITUTE : -
TITLE : Electrotechnical Pressspahn

ORIG. PUB. : Przegl. papiern., 1959, 15, No1, 12-16

ABSTRACT Presented are requirements for electrochemical Pressspahn (mechanical, physical, chemical, and electrical properties.). Characteristics of Pressspahn made in the GDR, Sweden and Switzerland are compared. Described is the present-day condition of Pressspahn production in the Polish Democratic Republic.

From the author's resume.

Card:

H - 153

WIERYCHLEWSKI, Tadeusz, mgr inż.; WINCZAKIEWICZ, Andrzej, doc.

Studies on the determination of the scattering results of calculating the strength properties of sheets formed on a Rapid-Koethen apparatus from chemical pulps ground in a Jokro mill. Przegl papier 18 no.8:241-246 Ag '62.

1. Instytut Celulozowo-Papierniczy, Lodz.

WINCZAKIEWICZ, A.

"Research on the effect of temperature, infrared and ultraviolet rays upon the aging process of road tars" by dr inż. Ryszard Szczepanik. Reviewed by A.Winczakiewicz. Przegl papier 18 no.9:301 S '62.

WINCZAKIEWICZ, A.

"Mechanized exploitation of forestry waste wood for the production of pulp" by E.Maillet. Reviewed by A.Winczakiewicz. Przegl papier 18 no.9:303 S '62.

WINCZAKIEWICZ, A.

"Physicochemical and biological purification of some diluted wastewaters from the production of fiber masses (method of monosulfite and straw mass with the help of soda)" by G.Brebion, B.Huriet. Reviewed by A.Winczakiewicz. Przegl papier 18 no.9:304 S '62.

WINCZAKIEWICZ, Andrzej, doc.

Paper for notebooks. Przegl papier 18 no.10:320-323 O '62.

1. Instytut Celulozowo-Papierniczy, Lodz.

WINCZAKIEWICZ, A.

Modern technique of measuring the substance in papermaking" by J.Oehmichen. Reviewed by A. Winczakiewicz. Przegl papier 18 no.10:335-336 O '62.

WINCZAKIEWICZ, A.

"Treatment of the paste from old paper of high consistence". Reviewed by A.Winczakiewicz. Przegl papier 18 no.10:336 O '62.

WINCZAKIEWICZ, Andrzej, doc.

Achievements and shortcomings of standardization in the paper industry. Przegl papier 18 no.11:359-360 N '62.

1. Instytut Celulozowo-Papierniczy, Lodz.

WINCZAKIEWICZ, A.

"Chemical technology of cellulose and paper production" by H. Hentschel. Reviewed by A. Winczakiewicz. Przegl papier 18 no.11:363 N '62.

WINCZAKIEWICZ, A.

"Skin diseases caused by professional work in the paper industry; prevention and protection" by W. Schweisheimer. Reviewed by A. Winczakiewicz. Przegl papier 18 no.11:367 N '62.

WINCZAKIEWICZ, A.

"Studies on the impregnation of hardwood chunks by the cold soda method" by G. Jacoquelin, M.L. Dionis, G. Petitpas. Reviewed by A. Winczakiewicz. Przegl papier 18 no.11:367 N '62.

WINCZAKIEWICZ, A.

"Recent progress in paper wood digestion" by C.W. Evans. Reviewed by A. Winczakiewicz. Przegl papier 18 no.11:367 N '62.

WINCZAKIEWICZ, A.

"Forms of mass vets and agitation of the pulp mass"
by A. Normann. Reviewed by A. Winczakiewicz.
Przegl papier 19 no.1:31 Ja '63.

LIRO, M.; CZUBRYT, J.; LESZCZYNSKI, Cz.; WINCZAKIEWICZ, A.; OPECHOWSKA, A.

Review of publications. Przegl papier 20 no.2:Suppl.:
Przegl dokum papier 15 no.2:63-64 F'64.

OPECHOWSKA, J.; NOWAKOWSKI, J.; WINCZAKIEWICZ, A.; LIRO, M.; LESZCZYNSKI, Cz.

Reviews of publications on paper. Przegl papier 20 no.3: Suppl.:Przegl dokum papier 15 no.3:1-2 Mr'64.

WINCZAKIEWICZ, Andrzej

Can hemp oakum be used in the production of cigaret tissue paper? Przegl papier 20 no.6:194-197 Je '64.

1. Pulp and Paper Institute, Lodz.

NIERYCHLEWSKI, Tadeusz, mgr inz.; WINCZAKIEWICZ, Andrzej, doc.

Determination of the influence of the quality of uncorrugated plies on the strength properties of corrugated board. Przegl papier 20 no.3:65-70 Mr'64.

WINCZO, J.

In the interest of the gliding sport. p. 3. (SKRZYDLATA POLSKA, Warszawa, Vol. 11, No. 8, Feb. 1955)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, June 1955, Uncl.

Winde, Bertram

CZECHOSLOVAKIA/Nuclear Physics - General C-1

Abs Jour : Ref Zhur - Fizika, No 4, 1958, No 7625

Author : Winde, Bertram
Inst : Not Given
Title : Nuclear Research and Nuclear Engineering in the German Democratic Republic

Orig Pub : Jaderna energie, 1957, 3, No 8, 248-252

Abstract : No abstract

Card : 1/1

WINDHOLC, I.

Reconnaissance of the moon.

p. 6 (Zolnierz Polski, No. 27, Nov. 1957. Warszawa, Poland)

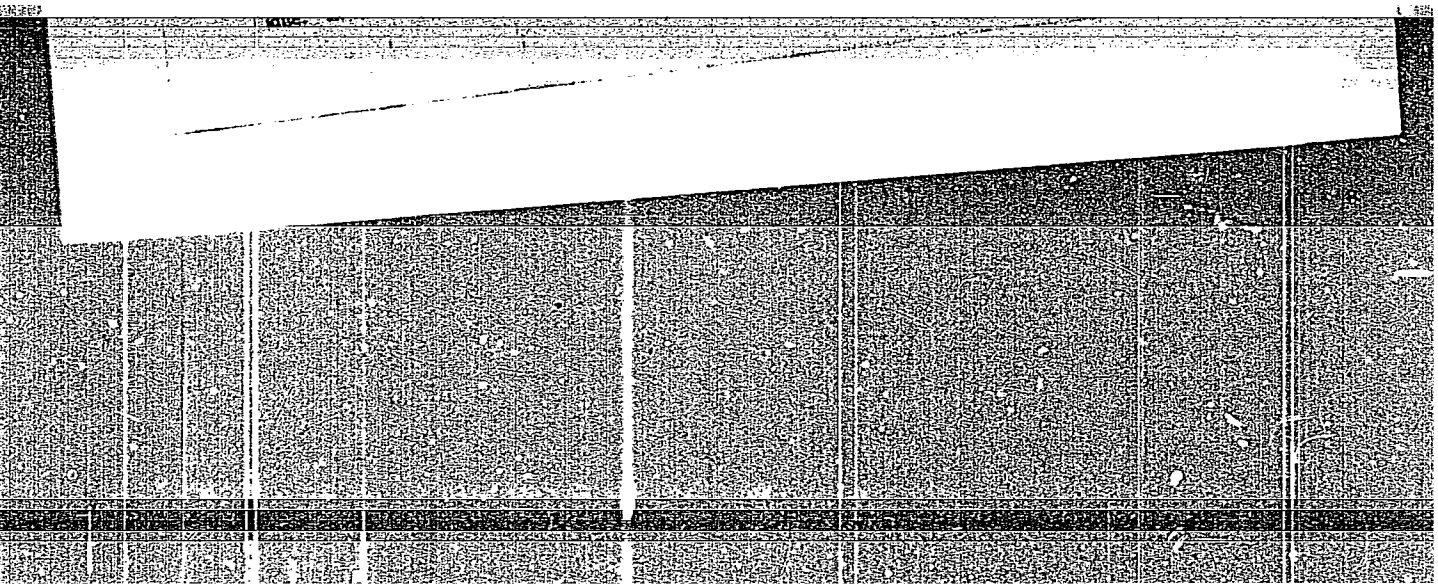
Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2, February 1958

WINDHOLZ, I

36. Syntheses from tetrahydrofurfuryl alcohol. (In German) A. Gergely, M. Windholz. *Acta Chimica Academiae Scientiarum Hungaricae*, Vol. 16, 1958, No. 3, pp. 363—368

Several derivatives of δ-chlorovaleronitrile have been prepared in order to obtain monomers suitable for polyester condensations. In the course of this investigation the following compounds were prepared: δ-(R)-valeronitriles (where R = furfuryloxy, *p*-oxyphenoxy or 2-oxyethoxy group), δ-(*p*-oxyphenoxy)-valerianic acids and methyl δ-(R)-valerianates (where R = furfuryloxy, *p*-oxyphenoxy or 2-oxyethoxy group), finally hydroquinono-di-(4-R-*n*-butyl)-ethers (where R = CN, COOH or $COOCH_3$).

JW
1/1



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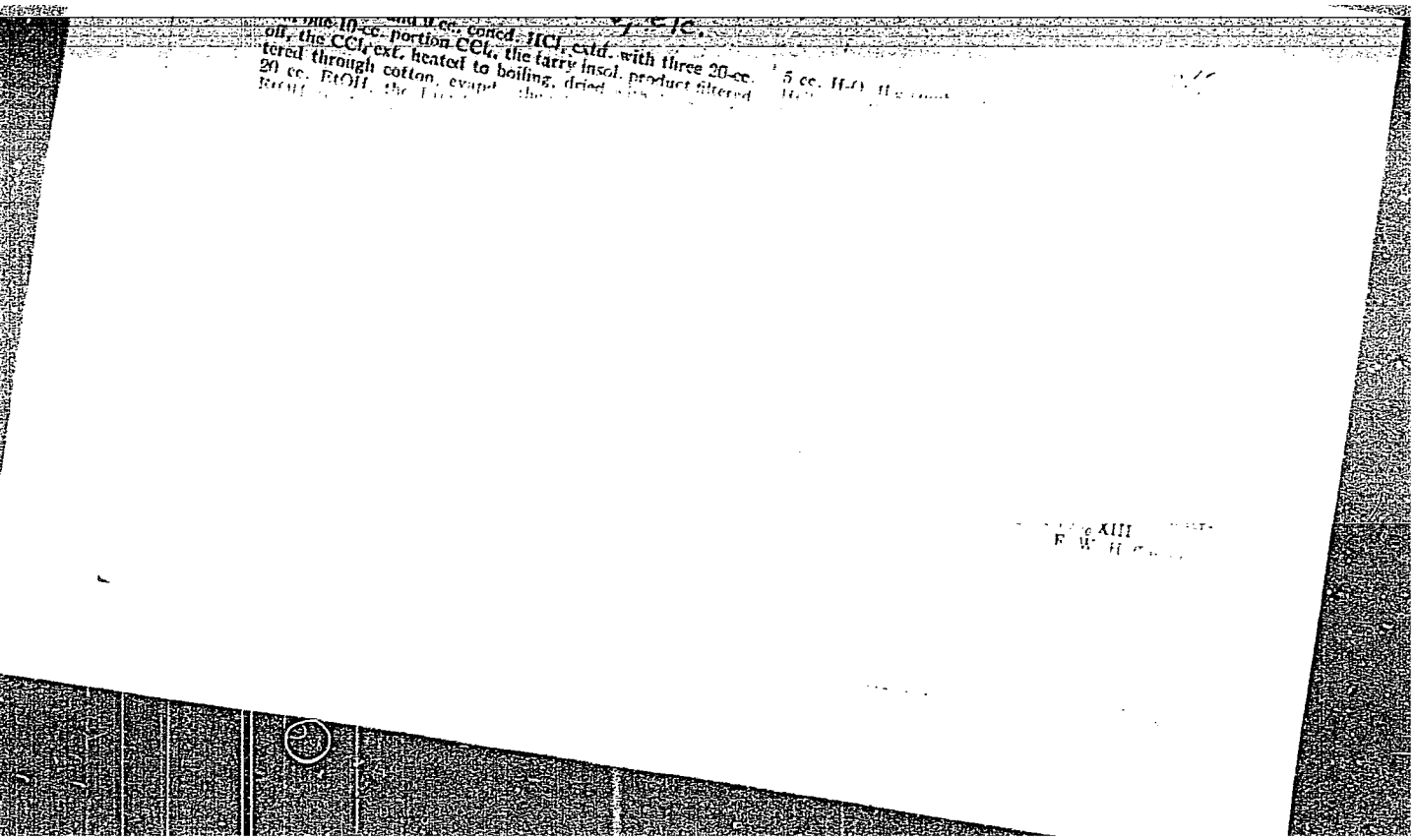
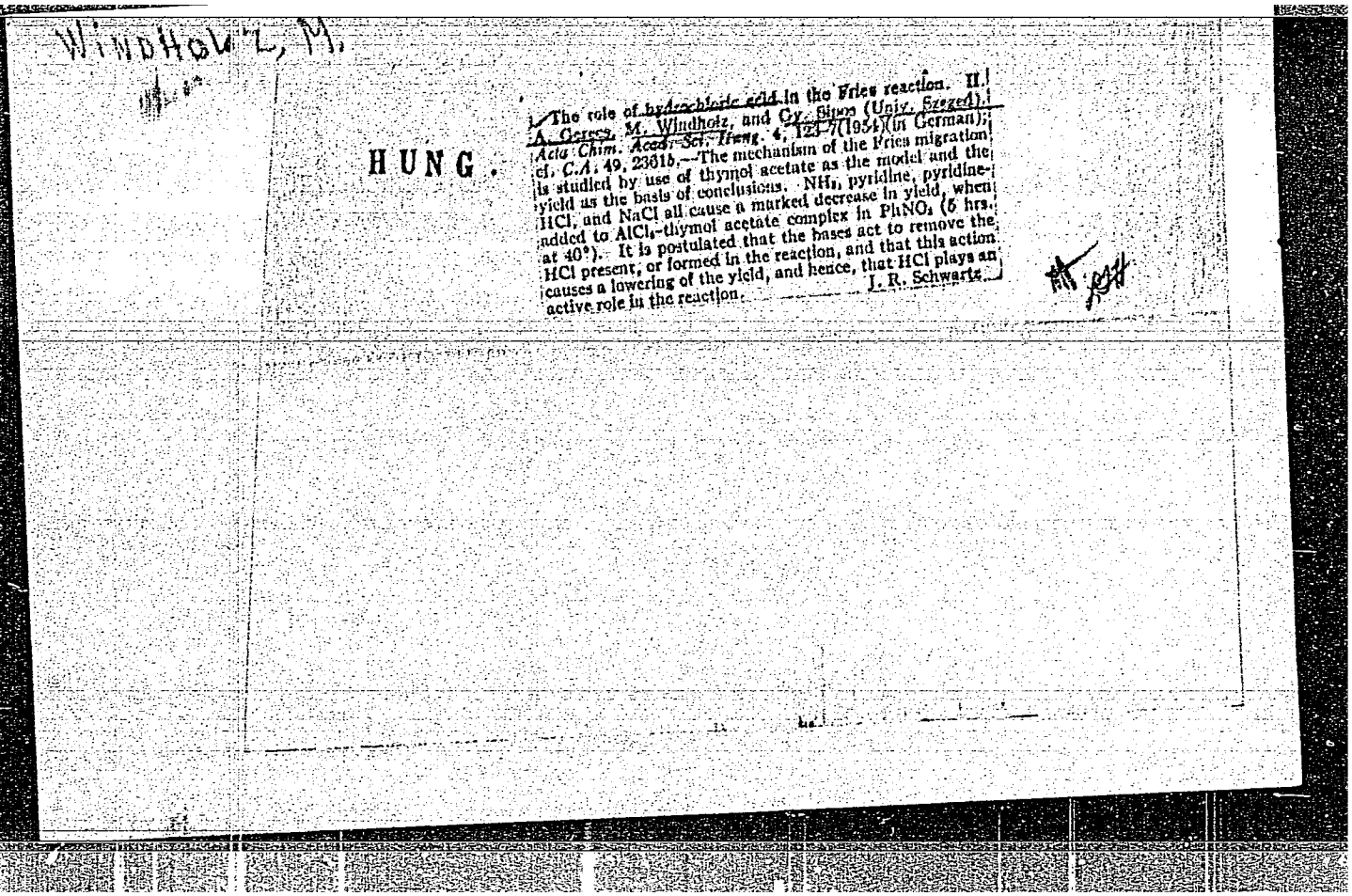




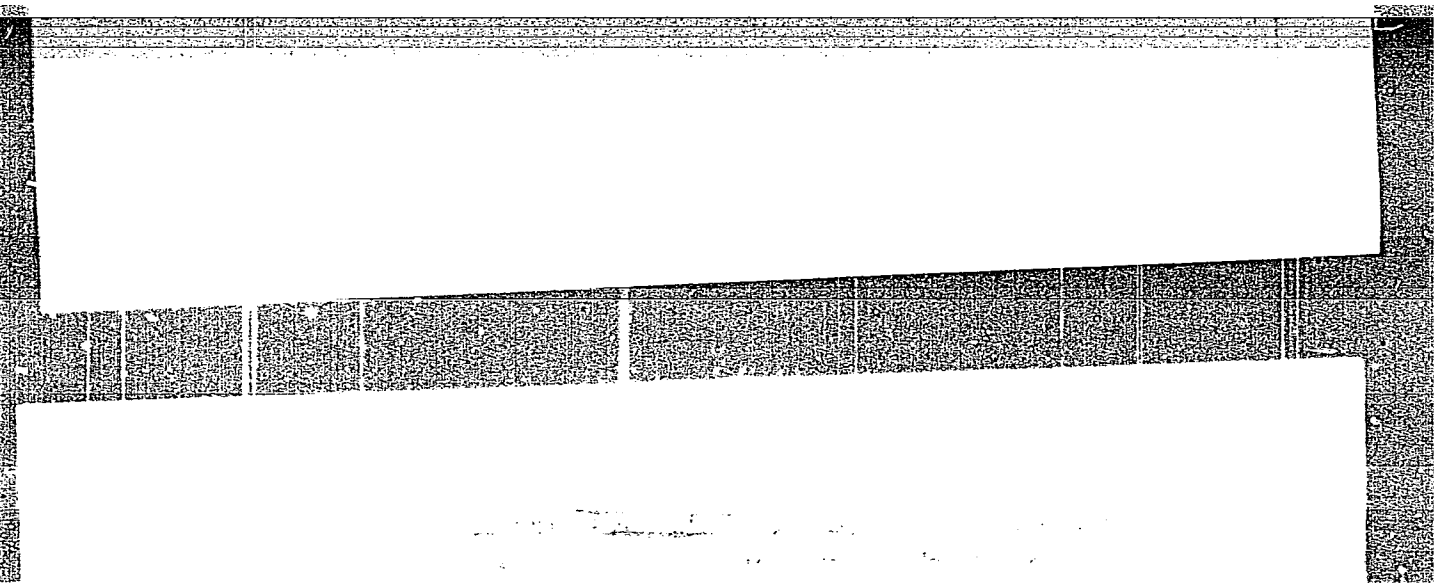
WINDHOLZ, M.

HUNG.

The role of hydrochloric acid in the Fries reaction. II. A. Gergely, M. Windholz, and Gy. Sipos (Univ. Szeged). *Acta Chim. Acad. Sci. Hung.* 4, 121-7 (1954) (in German); cf. *C.A.* 49, 2361b.—The mechanism of the Fries migration is studied by use of thymol acetate as the model and the yield as the basis of conclusions. NH_3, pyridine, pyridine-HCl, and NaCl all cause a marked decrease in yield, when added to $AlCl_3$-thymol acetate complex in $PhNO_2$ (5 hrs. at 40°). It is postulated that the bases act to remove the HCl present, or formed in the reaction, and that this action causes a lowering of the yield, and hence, that HCl plays an active role in the reaction. J. R. Schwartz

WINDHOLZ, MARTA

Ring complexes formed with aluminum chloride. Árpád Cseres (Inst. Appl. Chem., Szeged) and Márta Windholz. *Acta Chim. Acad. Sci. Hung.* 5, 183–6(1954)(in German). Qualitative observation of the loss of HCl is used to ascertain whether *o*-HOC_6H_4Ac (I) and related compds. form ring complexes with anhydrous $AlCl_3$ (II). When 1 ml. of a soln. of 10 g. II in 30 g. $PhNO_2$ is added to 0.1 g. of I, *o*-HOC_6H_4CHO, *o*-$HOC_6H_4CO_2Me$, or *o*-$O_2NC_6H_4OH$ at room temp., HCl is evolved. No evolution of HCl is observed under the above conditions with the para isomers. On heating (temp. listed) HCl is evolved copiously from *o*-HOC_6H_4NHAc (70–5°), *o*-HOC_6H_4NHBz (60–5°), α-BzCPh:NOH (70–5°), α-PhCHOHCPh:NOH (130–5°), α-benzaldoxime (150–5°). No HCl is evolved from *m*-HOC_6H_4NHAc (75°), *m*-HOC_6H_4NEBz (80°), PhNHAc (130°), PhNHBz (130°), β-benzil monoxime (75°), β-benzoin oxime (150°), β-benzaldoxime (160°). Weak evolution of HCl (at temp. listed) is observed with α- and β-furaldoxime (155–60°), "*cis*- and *trans*-benzamidocyclohexanol" (105°), *N*-benzoyl-*dl*-ephedrine (130°), and *N*-benzoyl-*dl*-ψ-ephedrine (130°). This reaction is suitable for yielding quick information as regards certain position- and stereoisomeric conditions. Robert S. Rouse



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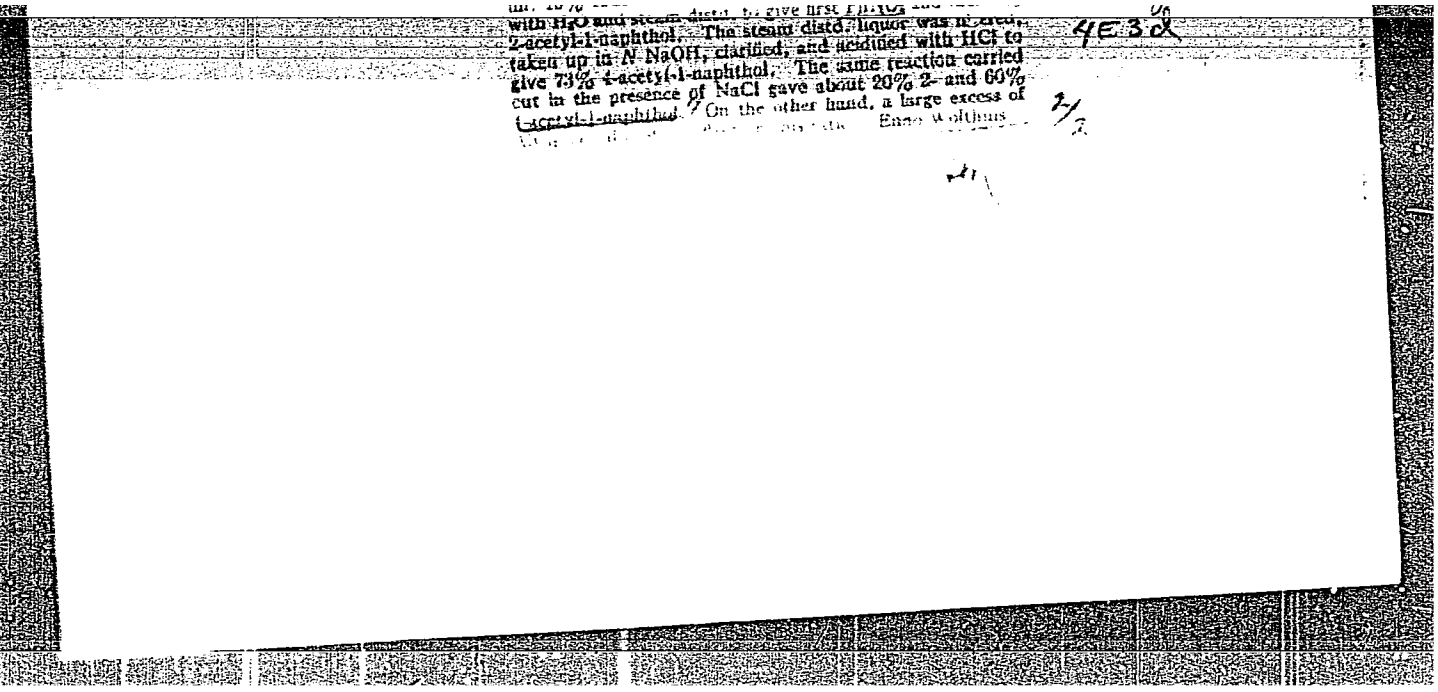
A. Geresz + M. Windholz.
...phenone. III 7 The presence of NaCl in this reaction ... 9

with H_2O and ... The steam distd. liquor was ... 4E3d
2-acetyl-1-naphthol. The steam distd. liquor was ... clarified, and acidified with HCl to
taken up in N NaOH, clarified, ... The same reaction carried



with H_2O and steam distd. to give first [illegible] and [illegible] 2-acetyl-1-naphthol. The steam distd. liquor was filtered, taken up in N NaOH, clarified, and acidified with HCl to give 73% 4-acetyl-1-naphthol. The same reaction carried out in the presence of NaCl gave about 20% 2- and 60% 4-acetyl-1-naphthol. On the other hand, a large excess of [illegible] Enos Wolfgang

4E 32

Mechanism of the Eries reaction. Árpád Gerecs and

WINDHOLZ, M.

HUNGARY / Organic Chemistry. Natural Substances and Their Synthetic Analogues. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61055.

Author : A. Gerecs, M. Windholz.
Inst : Academy of Sciences of Hungary.
Title : Preparation of Some Derivatives of Glucopyranosylbenzene (Brief Report).

Orig Pub: Acta chim. Acad. sci. hung., 1957, 13, No 1-2, 231-232.

Abstract: The previously described nitration conditions of tetraacetyl-β-D-glucopyranosylbenzene (I) (Craig J. M., Bonner W. A., J. Amer. Chem. Soc., 1950, 72, 4808) (tetraacetyl-β-D-glucopyranosyl = TAGP)

Card 1/3

HUNGARY / Organic Chemistry. Natural Substances and Their Synthetic Analogues. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61055.

Abstract: having been somewhat altered, together with n-TAGP (II) also o-nitroisomer thereof (III) was obtained. 100 g of $Cu(NO_3).3H_2O$ is added to the solution of 20 g of I in 320 ml of $(CH_3CO)_2O$ (40°, 30 min.) and is left to age (40°, 7 hours). The solution of the reaction mixture in 800 ml of water is extracted with ethylacetate and II is obtained, yield 21.8%, melting point 161 to 163° (from absolute alcohol), and from the mother liquor of III - yield 7%, melting point 118 to 119°. The catalitic reduction of II (4 g in 160 ml of absolute alcohol + 0.5 g of Pd/C) results in n-TAGP-aniline (IV), yield 92.5%, melting point 156 to 157.5°. n-TAGP-acetanilide (V) was prepared by acetylizing

Card 2/3

HUNGARY / Organic Chemistry, Natural Substances and Their Synthetic Analogues. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61055.

Abstract: IV, yield 79%, melting point 148 to 150°. Diacetylation of V (5.32 g in 210 ml of absolute CH_3OH + + 15 ml of 0.1 n. CH_3ONa, 2 days, about 20°) results in n-(β-D-glucopyranosyl)-acetanilide, yield 63%, melting point 191 to 192.5° (from isoamyl alcohol with drying on P_2O_5). n-TAGP-(n'-acetamido)-benzenesulfamidobenzene was prepared from 2.74 impure IV in 25 ml of C_5H_5N (0°) + 1.51 g of n-$Ch_3CONHC_6H_4SO_2Cl$, yield 84%, melting point 220 to 221° [from dilute acetone, after which from $(CH_3CO)_2O$].

Card 3/3

HUNGARY/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khim., No 2, 1959, 4688.

Author : Gerecs, A. and ~~Windholz, M.~~ L. Eötvös Univ., Budapest
Inst : Hungarian Academy of Sciences.
Title : Syntheses Based on Tetrahydrofurfurol. I, II.

Orig Pub: Acta Chim Acad Hung., 14, No 3-4, 333-338, 417-420 (1958) (in German with Summaries in English and Russian).

Abstract: I. The possibility of obtaining monomers suitable for the production of synthetic fibers from 2,3-dihydropyran (I) has been investigated. The reaction of I with $NH_2OH.HCl$ is accompanied by hydrolysis followed by the conversion of the intermediate $HO(CH_2)_4CHO$ (II) which is formed to the oxime (III); the latter is also obtained directly from II. The action of $(CH_3CO)_2O$ (IV) on II gives 2-acetoxytetrahydropyran (V) (also obtained

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from I and IV), whereas the acetylation of III with excess IV in pyridine (~ 20°) gives $CH_3COO(CH_2)_4CH{=}NOCOCH_3$ (VI), which is formed together with the previously noncharacterized $CH_3COO(CH_2)_4CN$ (VII), obtained by heating II in a solution of IV or by the action of CH_3COCl [presumably on III]; VI is also obtained by the reaction of IV with $HO(CH_2)_4CN$ (VIII), synthesized in turn by the action of $HCONH_2$ on III. The reaction of III with PBr_3 and with $SOCl_2$ gives respectively $Br(CH_2)_4CN$ (IX) and $Cl(CH_2)_4CN$ (X) (the latter is also obtained from VIII and $SOCl_2$); when X is treated with KCN, $CN(CH_2)_4CN$ (XI) is obtained. Preparation: 0.075 mol IV are added with cooling to a solution of 0.05 mol II in 5 ml pyridine; the reaction mixture is allowed to stand 24 hrs (~ 20°)

after which it is distilled, giving V, yield 71%, bp 67-70°/7mm. V (3.88 gms) is also prepared from 0.06 mol I and 0.08 mol IV (~ 100°, 1 hr). To a solution of 0.32 mol $NH_2OH.HCl$ in 20 ml water are added successively a solution of CH_3ONa (prepared from 0.27 g-atom Na and 110 ml CH_3OH) and 25.20 gms II, the reaction mixture is heated (1 hr, 50-55°), cooled and filtered. The solvent is distilled off from the filtrate, the residue is refluxed twice with $CHCl_3$ (250 and 50 ml); III is obtained, yield 88.5%, mp 89-92° (from a 20% solution of NaCl). 0.24 mol I are added dropwise (~ 20 min, 20-30°) to 200 ml of an aqueous solution of 0.3 mol $NH_2OH.HCl$ (pH 2.5-3.0); after 20-30 min the solution is neutralized with

Abs Jour: Ref Zhur-Khim., No 2, 1959, 4688.

a calculated amount of $NaHCO_3$, 40 gms NaCl are added, and the solution is extracted with 160 ml iso-$C_5H_{11}OH$; the extract gives III, yield 73.5% (from 20% NaCl solution). 0.08 mol $HCONH_2$ is added dropwise at 130-135° to 0.04 mol III, the solution is heated for an additional 1.5 hr, cooled, and extracted with C_6H_6 (8 x 10 ml); VIII is obtained, yield 51.5%, bp 115-120°/12mm; VII is produced from 0.019 mol VIII and 0.039 mol IV (refluxed for 1 hr), yield 79%, bp 115-117/11mm. VII is also obtained in yields of 78% from 0.04 mol III and 20 ml IV (1 hr, 135°) or from 0.04 mol III and 0.1 mol CH_3COCl (35 min). 0.03 mol III is added to a mixture of 3 ml abs pyridine and 0.07 mol IV; the reaction mixture is distilled after 2dhys

($\sim 20^0$) and VII is obtained, yield 2.25 gms, together with VI, yield 0.55 gm, bp 143-150^0/7-8 mm, mp 72-73^0. 0.12 mol III in 15 ml C_6H_6 and 0.3 mol $SOCl_2$ ($\sim 0^0$) are heated (80-85^0, 1 hr), and the solution is evaporated; X is obtained, yield 81%, bp 90-92^0/11mm. Using a similar procedure, 0.02 mol VIII and 0.02 mol $SOCl_2$ also give X, yield 61.5%. A mixture of 0.04 mol III and 10 ml C_6H_6 is added dropwise at 55^0 to a fraction of a solution of 0.047 mol PBr_3 in 5 ml C_6H_6 (solution A), the mixture is heated to 80^0 (over a bath), and the remainder of solution A is added over 30 min; 20 gms ice and 4.5 gms NaCl are added; IX is isolated, yield 29%, bp 106^0/11mm. 0.04 mol X is added to a mixture of 0.05 mol KCN and 50 ml tetrahydrofurfurol

(XII) and the solution is heated (4 hrs, 120-125° (over a bath)); on booling XI is obtained, yield 78.5%, bp 145-147°/11mm.

II. The reaction of X with RC_6H_4ONa gives $RC_6H_4O(CH_2)_4R'$ (XIII, R' = CN; a, R = H; b R = = o-NO ; c, R = n-NO ; d, R = p-NO); the saponification of XIIIb-d gives the corresponding nitro acids (XIIIe-g, R' = COOH) which on hydrogenation over Pd/C give the corresponding amino acids (XIIIh-k). The latter on polycondensation give substances of the composition $(C_{11}H_{15}NO_2)n$ (XIVa-c). 0.018 mol C_6H_5OH is added to a solution of 0.0178 g-atom Na in 15 ml XII and the resulting solution is treated at ~ 20° with a solution of

HUNGARY/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khim., No 2, 1959, 4688.

0.017 mol X in 2 ml XII. The mixture is heated (1.5 hrs, 90-100°; 1 hr, 120-125°) giving XIIIa, yield 77%, bp 162-163°/12 mm, mp 30°. A mixture of 2.86 gms XIIIb, 15 ml CH_3COOH, and 15 ml conc HCl is refluxed for three hrs, giving XIIIe, yield 82.5%, mp 78-80° (from benzene). A solution of 1 gm XIIIe in 40 ml alcohol is hydrogenated over 0.1 gm Pd/C (~ 20°, 760mm, ~ 20 min) giving XIIIh, yield 90.5%, mp 116-118° (from alc). Using a procedure similar to that used for XIIIa, e, and h, the following XIII have been prepared (the product, yield in %, mp in °C (solvent) are given in that order): XIIIb, 76, 36-38 (alc); XIIIc, 82, 15-16 (alc); XIIIb, 76, 37-39 (alc); XIIIf, 85, 78-80 (benzene); XIIIg, 77,

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Abs Jour: Ref Zhur-Khim., No 2, 1959, 4688.

100-101 (benzene); XIII i, 42.8, 85-86 (water); XIIIk, 64, 170-171 (water). 1.366 gm XIIIh is heated in a stream of N_2 for 2 hrs at 200-230° and then for 10-20 min in vacuum (15 mm); refluxing with 10 ml C_6H_6 gives XIVa, mp 162-178°, mol wt 1200, η_r 1.03 (0.5 gm in 100 ml m-cresol, 20°). Using asimilar procedure, XIVb is obtained from 1.0488 gm XIIIi; mp 152-178° (after treatment with alcohol), mol wt 1650, η_r 1.085. Likewise 1.0051 gm XIIIk give XIVc, mp 265-275°, the molecular weight of which could not be determined. -- V. Zaretskiy.

Synthesis from tetrahydrofurfuryl alcohol. II. A. Gerecs and M. Windholz (L. Kötvös Univ., Budapest). *Acta Chim. Acad. Sci. Hung.* 14, 417–20(1958)(In German); cf. *C.A.* 53, 10166e.—A series of compds. were prepd. from the relatively easily accessible $Cl(CH_2)_4CN$ (I). Na (0.41 g.) dissolved in 15 ml. tetrahydrofurfuryl alc. (II), 1.09 g. PhOH added (warming occurred), the mixt. cooled to room temp., 2 g. I in 2 ml. II added, the mixt. heated with stirring 1.5 hrs. at 90–100° and 1 hr. at 120–5°, cooled, filtered, the filtrate concd. *in vacuo*, the residue (3.38 g.) treated with 15 ml. H_2O, crystd., the solid filtered off, and washed with ice-cold H_2O gave 2.31 g. $PhO(CH_2)_4CN$, b_{12} 162–3°, m. 30°. *x*-$O_2NC_6H_4OH$ treated similarly but heated 2 hrs. at 140°, the mixt. filtered, the filtrate concd. *in vacuo*, the residue mixed with 40 ml. 3% NaOH and 12 ml. C_6H_6, the aq. phase sepd., extd. twice more with C_6H_6, the combined C_6H_6 soln. washed twice with 10 ml. portions aq. NaOH and twice with 10 ml. portions H_2O, dried, treated with C, filtered, and the filtrate concd. *in vacuo* gave from 2.39 g. *o*-$O_2NC_6H_4OH$ (III) 2.86 g. crude *o*-$O_2NC_6H_4O(CH_2)_4CN$ (IV), m. 36–8° (EtOH); 3.24 g. *m*-III gave 4.20 g. *m*-IV, m. 15–16° (EtOH); 4.60 g. *p*-III gave 6.83 g. *p*-IV, m. 37–9° (EtOH). IV (2.86 g.) in 15 ml. AcOH and 15 ml. concd. HCl refluxed 3 hrs., the soln. treated with C, the filtrate concd. *in vacuo*, the residue dissolved in *N* NaOH, the soln.

extd. twice with 12 ml. portions Et_2O, acidified with 25% HCl, the ppt. (2.55 g.) filtered off, washed with H_2O, dissolved in 5 vols. warm C_6H_6, the soln. treated with C, filtered, the filtrate concd. *in vacuo*, and the residue recrystd. (C_6H_6) gave *o*-$O_2NC_6H_4O(CH_2)_4CO_2H$ (V), m. 78–80°. *m*-IV (7 g.) treated similarly, the crude product (6.46 g.) dissolved in 15 vols. warm EtOH, the soln. treated with C, filtered, the EtOH distd., and the residue recrystd. (C_6H_6) gave *m*-V, m. 78–80°. *p*-IV (2.73 g.) treated as *o*-IV and the crude product (2.27 g.) recrystd. (C_6H_6) gave *p*-V, m. 100–1°. *o*-V (1 g.) hydrogenated at room temp. and atm. pressure in 40 ml. 96% EtOH over 0.1 g. Pd-C (H absorption completed in 20 min.), filtered, the filtrate concd., and the residue recrystd. gave 0.79 g. *o*-$H_2NC_6H_4O(CH_2)_4CO_2H$ (VI), m. 116–18°. Similarly were prepd. 42.8% *m*-VI, m. 85–6° (H_2O), and 64% *p*-VI, m. 170–1° (H_2O). *o*-VI (1.3660 g.) heated 2 hrs. at 200–30° (oil bath temp.) under N (during the 1st hr. the temp. was raised slowly), the mixt. heated 10–20 min. *in vacuo* (15 mm.), the product boiled and stirred with 10 ml. C_6H_6, the mixt. allowed to stand overnight, the product pulverized under C_6H_6, filtered off, and dried gave the *polycondensate*, m. 162–78° (softens 60–5°). Similarly from *m*-VI was prepd. a *polycondensate*, m. 152–78°, from *p*-VI a *polycondensate*, m. 285–75°. Martin J. Braker

4

Country : HUNGARY G
Category : Organic Chemistry. Synthetic Organic Chemistry

Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15379

Author : Gerecs, A.; Windholz, M.
Institut. : Hungarian AS
Title : Syntheses from Tetrahydrofurfuryl Alcohol. III

Orig Pub. : Acta chim. Acad. scient. hung., 1958, 16, No 3, 363-368

Abstract : δ-Chlorovaleronitrile (I) is condensed with tetrahydrofurfuryl alcohol (II) and ethylene glycol (III) in δ-R-valeronitriles (IVa, b, where a is R = tetrahydrofurfuryloxy, b is R= 2-oxyethoxy), transformed by the reactions with methanol HCl (24 hours, 20°) in methyl ethers of the corresponding δ-R-valeric acids, b.p. 138-145°/2.5 mm. and 135-138°/10 mm. During condensation of I with hydroquinone (V), δ-(p-oxyphenoxy)-valeronitrile (VI) and di-

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Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15379

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Abstract cont'd. : (4-cyano-n-butyl) ether of hydroquinone (VII) are obtained, the relative quantity of which can vary depending on the ratio of the original substances. VI and VII are hydrolyzed with a boiling mixture of CH_3COOH and concentrated HCl (1:1) in δ-(p-oxyphenoxy)-valeric acid (VIII), yield 76%, m.p. 142-145° (from water), and di-(4-carboxy-n-butyl) ether of hydroquinone (IX), yield 80%, m.p. 147-150° (from alcohol), and are transformed (see above) into

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Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15379

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Abstract cont'd. : methyl ethers of VIII, yield 82%, m.p. 71-72° (from CCl_4) and of IX, yield 85%, m.p. 55-56° (from CH_3OH). IX is condensed with III by heating in an N_2 atmosphere in the presence of $(CH_3COO)_2Ca$ (two hours, 180°; two hours, 220°/1 mm.; two hours, 250°; one hour, 270°) into a substance with m.p. 120-122°; from IVb a non-crystallizing substance was obtained under the same conditions. 0.109 mole of I is added to a solution of 0.109 gram-atom of Na in 44 ml.

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Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15379

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Abstract cont'd. : of II, heated for 1.5 hours at 140°, the solution is distilled and IVa is obtained, yield 50%, b.p. 155-160°/16-17 mm. IVb is obtained analogously, yield 49%, b.p. 150-155°/10 mm. 0.25 mole of V and 0.05 mole of I are added to a solution of 0.05 gram-atom of Na in 40 ml. of II, heated for 1.5 hours at 140° and, after cooling, VII is separated out, yield 57%, m.p. 121-123° (from alcohol); mother liquor is distilled, the residue triturated with 20 ml. of

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Abs. Jour	: Ref Zhur - Khim., No 5, 1959,	No. 15379
Author	:	
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Abstract cont'd.	: water and VI is separated out, yield 39.7%, m.p. 92-94° (from water). Part II, see Ref Zhur-Khim, 1959, 4688.	

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Radiotechnika 11 no.3:4 of cover Mr '61

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Universal factory measuring instruments. Radiotechnika 11 no.4: 4 of cover Ap '61.

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Universal factory measuring instruments(V). Radiotechnika 11 no.5:4. My '61.

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Universal factory measuring instruments. VII. Radiotechnika 11 no.7:4 of cover Jl '61.